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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HIGGINS, GERARD T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,771	Applicant(s) KINOSHITA ET AL.	
	Examiner GERARD T. HIGGINS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 14, and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/17/2009 has been entered.

Response to Amendment

2. The amendment filed 03/17/2009 has been entered. Currently claims 1-4, 14, and 15 are pending, claims 5-13 are cancelled, and claims 14 and 15 are new.

With regard to claims 1, 2, and 14, for the purposes of examination, the Examiner will be treating the phrase "consisting essentially of" as comprising. Please see section 19 below.

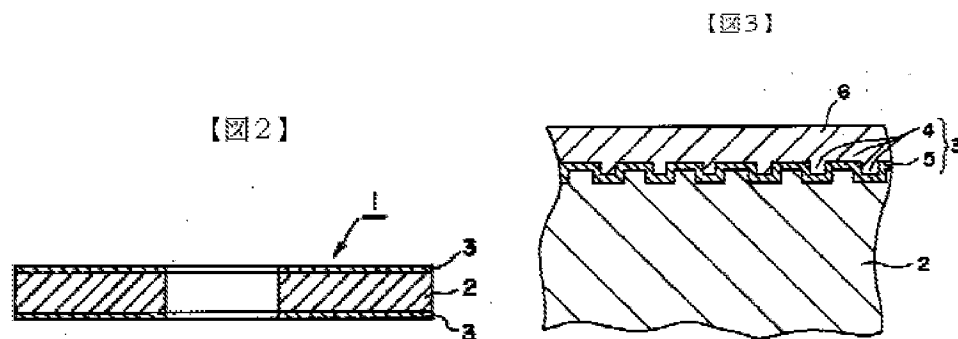
Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Ota (JP 2000-030302), machine translations included, as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.

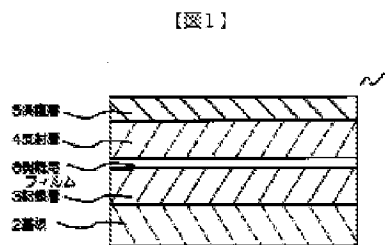


Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on both sides of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo is deemed to be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach

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a protective layer for protecting the recording layer and a release layer provided between the substrate and the recording layer.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. A further motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

With specific regard to claim 3, the Examiner deems this to be a mere duplication of parts of the base material layer **6** of Otomo. It has been held that "mere duplication

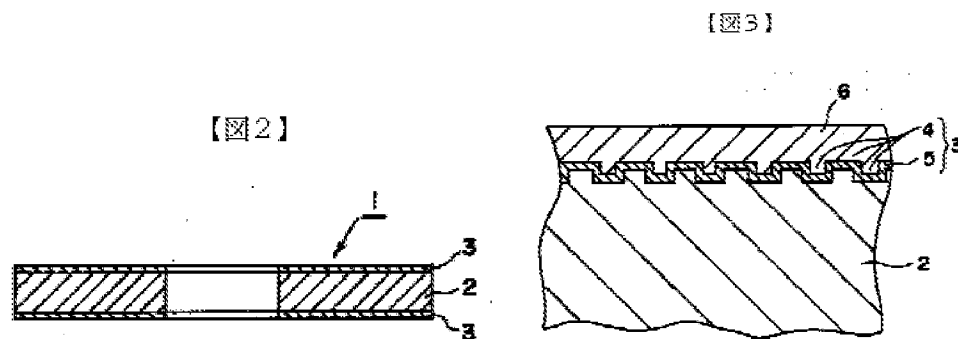
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of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer **6** in order to provide extra water fastness and abrasion resistance for the recording layer.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Ota (JP 2000-030302), machine translations included, as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.

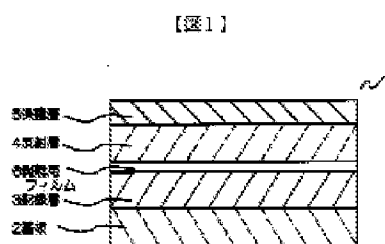


Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on both sides of the substrate

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[0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo is deemed to be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a protective layer for protecting the recording layer and a release layer provided between the substrate and the recording layer.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. A further motivation for combining these references can be found in Ota at [0021], which

discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Ota (JP 2000-030302), machine translations included, as evidenced by applicants' admissions, as applied to claim 1 above, and further in view of Arai et al. (5,020,048).

Otomo in view of Ota render obvious all of the limitations of applicants' claim 1 in section 5 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film **6** formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Ota (col. 2, lines 35-38).

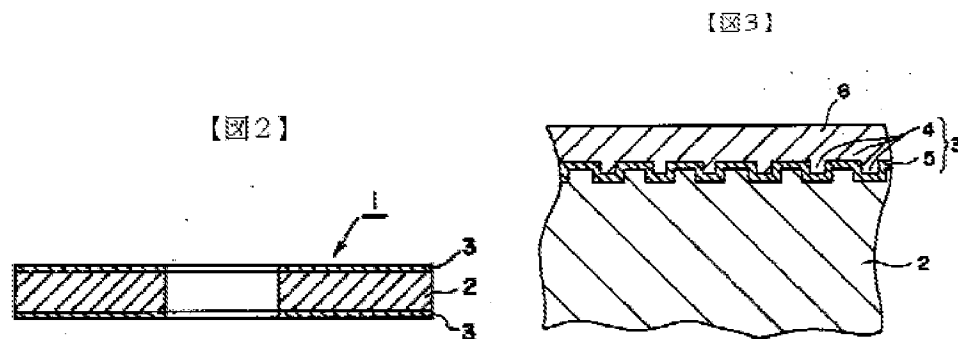
Since Otomo in view of Ota and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Ota. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact

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that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

7. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Matsuishi et al. (5,972,457) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on at least one side of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the

biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an inherently non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer provided between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

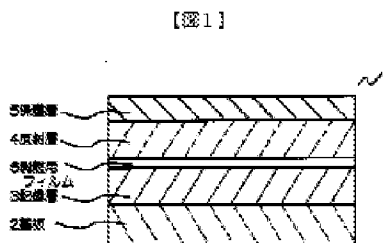
Matsuishi et al. teach a printable optical recording medium, which has a recording layer, a protective layer, which reads on applicants' substrate or base material layer for the printing layer, and an ink-receiving layer provided in that order (Abstract). They teach at col. 7, lines 25-30 that the protective layer and ink-receiving layer may be combined with each other or the protective layer may include a plurality of layers, wherein one of the plurality of protective layers reads on applicants' base material layer of the printing layer and another one of the protective layers reads on the substrate of

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applicants' or Otomo. They teach at col. 9, lines 45-51 the properties of their ink-receiving/protective layers, which include *inter alia* water resistance (hydrophobic) and hardness (abrasion resistance). The ink-receiving layer may be used in conjunction with oil-based inks (col. 10, lines 21-25); further, they teach at col. 11, lines 17-46 that the polymers in their protective layers and ink-receiving layer have a higher hydrophobic property than prior art receiving layers/protective layers. From all of this evidence, the Examiner deems that the protective layers of Matsuishi et al. intrinsically comprise non-hydrophilic (i.e. hydrophobic) films.

Since Matsuishi et al. and Otomo are both drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine a protective layer (i.e. to act as the base material layer claimed) and an ink-receiving layer of Matsuishi et al. on top of the substrate layer of the previously modified optical disc of Otomo. The results of which would have been completely predictable to one having ordinary skill; further, the components would have performed the same in combination as they had separately. Another motivation for combining these references would be to lead to an optical disc that was customizable by the consumer.

Ota teaches the device of Figure 1.



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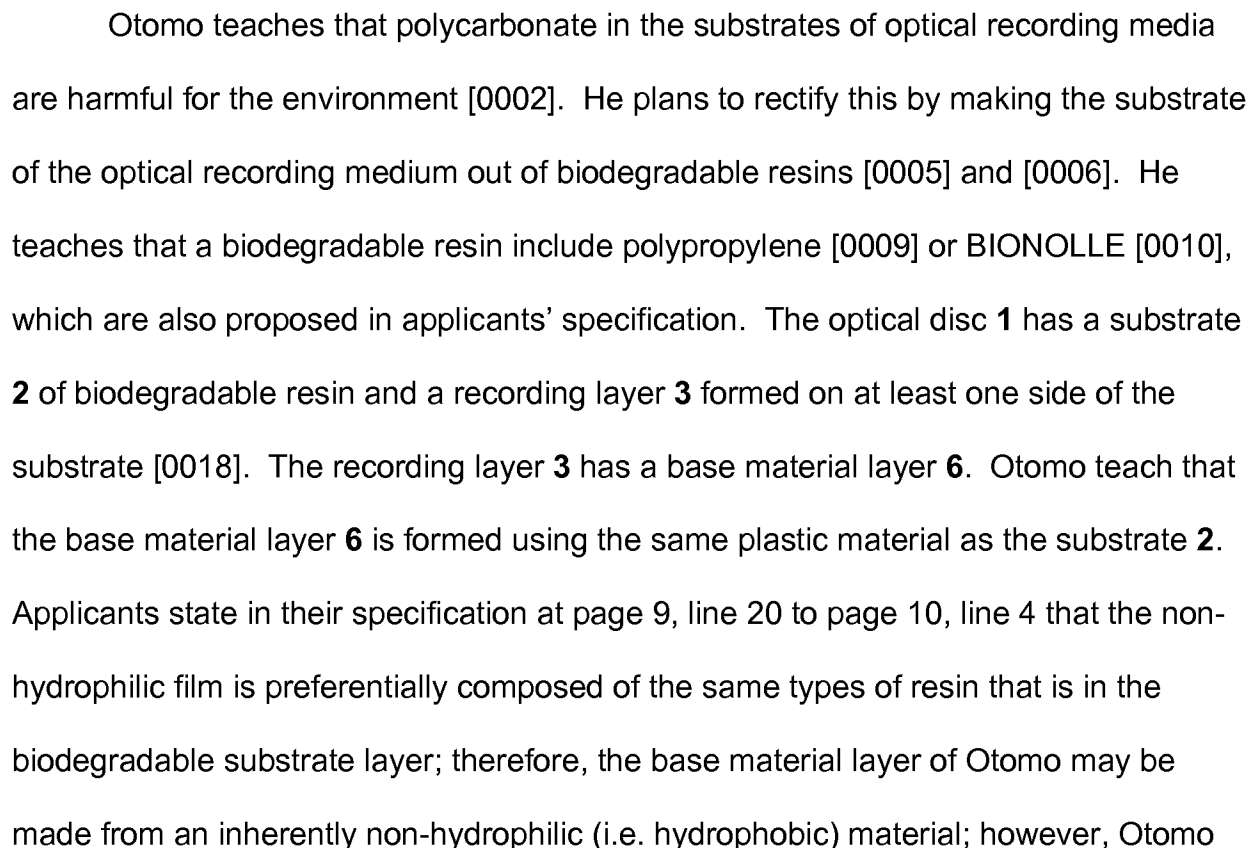
The device has a release layer **6** disposed in between various layers of an optical recording medium.

Since Otomo, Matsuishi et al. and Ota are all drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between any two layers, including between the substrate and printing layer as claimed, of the disc of Otomo in view of Matsuishi et al. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for making the modification to these references can be found in Ota at [0021], which discloses that the release provide an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium. One of ordinary skill would be completely apprised of wanting to dispose of a printing layer separately as that would also provide an extra level of security.

With regard to claim 4, it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer **6** in order to provide extra water fastness and abrasion resistance for the recording layer.

Otomo teaches the invention of Figures 2 and 3.



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fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer provided between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc 1 and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

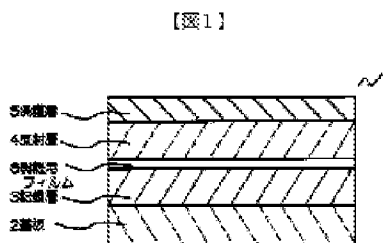
Matsuishi et al. teach a printable optical recording medium, which has a recording layer, a protective layer, which reads on applicants' substrate or base material layer for the printing layer, and an ink-receiving layer provided in that order (Abstract). They teach at col. 7, lines 25-30 that the protective layer and ink-receiving layer may be combined with each other or the protective layer may include a plurality of layers, wherein one of the plurality of protective layers reads on applicants' base material layer of the printing layer and another one of the protective layers reads on the substrate of applicants' or Otomo. They teach at col. 9, lines 45-51 the properties of their ink-receiving/protective layers, which include *inter alia* water resistance (hydrophobic) and

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hardness (abrasion resistance). The ink-receiving layer may be used in conjunction with oil-based inks (col. 10, lines 21-25); further, they teach at col. 11, lines 17-46 that the polymers in their protective layers and ink-receiving layer have a higher hydrophobic property than prior art receiving layers/protective layers. From all of this evidence, the Examiner deems that the protective layers of Matsuishi et al. intrinsically comprise non-hydrophilic (i.e. hydrophobic) films.

Since Matsuishi et al. and Otomo are both drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine a protective layer (i.e. to act as the base material layer claimed) and an ink-receiving layer of Matsuishi et al. on top of the substrate layer of the previously modified optical disc of Otomo. The results of which would have been completely predictable to one having ordinary skill; further, the components would have performed the same in combination as they had separately. Another motivation for combining these references would be to lead to an optical disc that was customizable by the consumer.

Ota teaches the device of Figure 1.



The device has a release layer 6 disposed in between various layers of an optical recording medium.

Since Otomo, Matsuishi et al. and Ota are all drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between any two layers, including between the substrate and printing layer as claimed, of the disc of Otomo in view of Matsuishi et al. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for making the modification to these references can be found in Ota at [0021], which discloses that the release provide an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium. One of ordinary skill would be completely apprised of wanting to dispose of a printing layer separately as that would also provide an extra level of security.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Matsuishi et al. (5,972,457) and Ota (JP 2000-030302), as evidenced by applicants' admissions, as applied to claim 2 above, and further in view of Arai et al. (5,020,048).

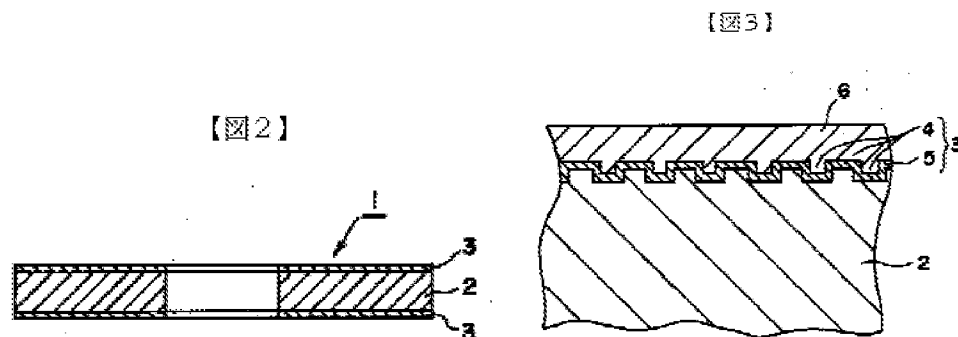
Otomo in view of Matsuishi et al. and Ota render obvious all of the limitations of applicants' claim 2 in section 8 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film **6** formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Anderson (col. 2, lines 35-38).

Since Otomo, Matsuishi et al., Ota, and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Matsuishi et al. and Ota. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

10. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on at least one side of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer provided between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Since Otomo and Anderson are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson with the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making

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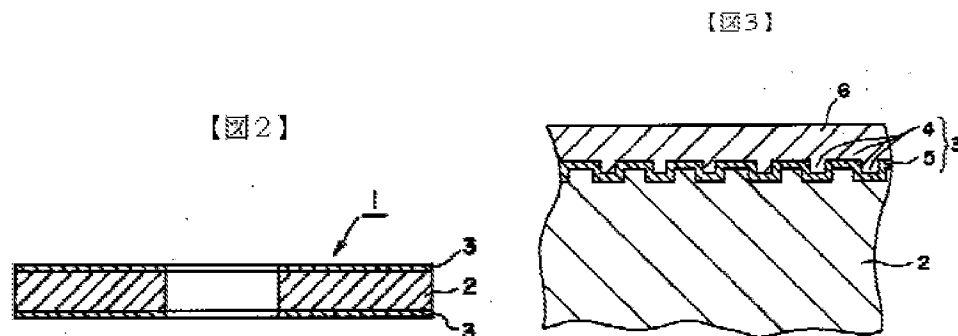
this combination is to provide a customizable surface to the use of the optical disc medium.

With regard to claim 4, it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer **6** in order to provide extra water fastness and abrasion resistance for the recording layer.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010],

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which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on at least one side of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer provided between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Since Otomo and Anderson are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson with the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making this combination is to provide a customizable surface to the use of the optical disc medium.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026), as evidenced by applicants' admissions, as applied to claim 2 above, and further in view of Arai et al. (5,020,048).

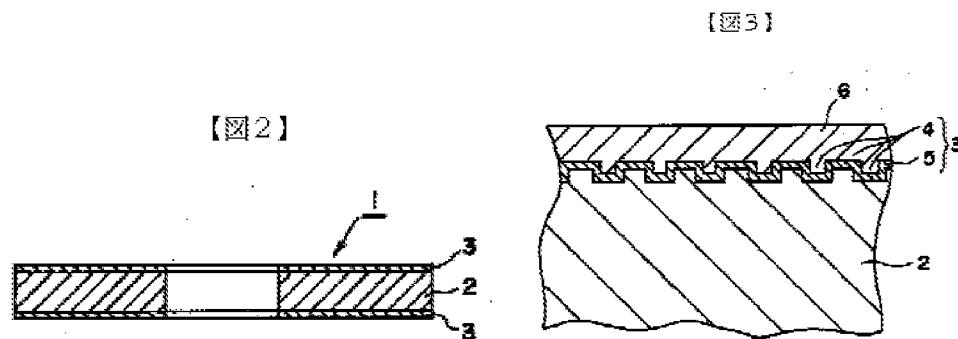
Otomo in view of Anderson render obvious all of the limitations of applicants' claim 2 in section 11 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film **6** formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Anderson (col. 2, lines 35-38).

Since Otomo in view of Anderson and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Anderson. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Matsuishi et al. (5,972,457) and Ota (JP 2000-030302), and as evidenced by applicants' admissions.

With regard to claim 14, Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on at least one side of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an inherently non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer in between the substrate and recording layer, a release layer in between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

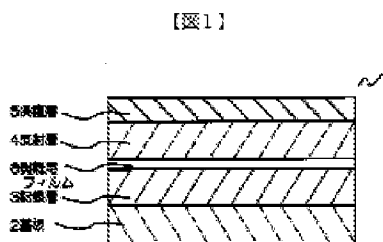
Matsuishi et al. teach a printable optical recording medium, which has a recording layer, a protective layer, which reads on applicants' substrate or base material layer for the printing layer, and an ink-receiving layer provided in that order (Abstract). They teach at col. 7, lines 25-30 that the protective layer and ink-receiving layer may be combined with each other or the protective layer may include a plurality of layers, wherein one of the plurality of protective layers reads on applicants' base material layer of the printing layer and another one of the protective layers reads on the substrate of applicants' or Otomo. They teach at col. 9, lines 45-51 the properties of their ink-receiving/protective layers, which include *inter alia* water resistance (hydrophobic) and hardness (abrasion resistance). The ink-receiving layer may be used in conjunction with oil-based inks (col. 10, lines 21-25); further, they teach at col. 11, lines 17-46 that the polymers in their protective layers and ink-receiving layer have a higher hydrophobic property than prior art receiving layers/protective layers. From all of this evidence, the

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Examiner deems that the protective layers of Matsuishi et al. intrinsically comprise non-hydrophilic (i.e. hydrophobic) films.

Since Matsuishi et al. and Otomo are both drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine a protective layer and an ink-receiving layer of Matsuishi et al. on top of the substrate layer of the previously modified optical disc of Otomo. The results of which would have been completely predictable to one having ordinary skill; further, the components would have performed the same in combination as they had separately. Another motivation for combining these references would be to lead to an optical disc that was customizable by the consumer.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo, Matsuishi et al., and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo in view of Matsuishi et al. The results of this combination would have been completely predictable to one having ordinary skill in the

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art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

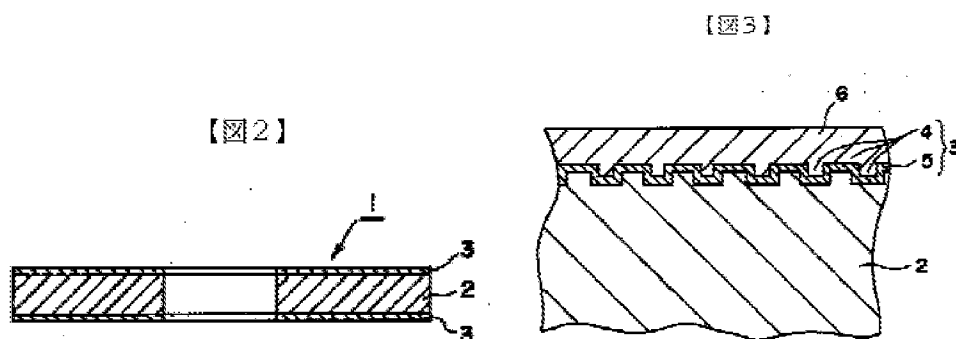
With specific regard to the release layer provided between the substrate and the printing layer of claim 14, the Examiner deems this to be a mere duplication of parts of the release layer placed in between the substrate and the recording layer. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would have been obvious to one having ordinary skill in the art of optical recording media to include a release layer at any position in the optical recording medium strata, including in between the printing layer and the substrate as claimed. A motivation for doing so would be additional security as it would allow one to dispose of the printing layer, which might have important information thereon, or for affording separation and potential recycling of the individual layers of the optical recording medium.

With regard to claim 15, it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer **6** in order to provide extra water fastness and abrasion resistance for the recording layer.

14. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Matsuishi et al. (5,972,457) and Ota (JP 2000-030302), and as evidenced by applicants' admissions.

With regard to claim 14, Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on at least one side of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-

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hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an inherently non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer in between the substrate and recording layer, a release layer in between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

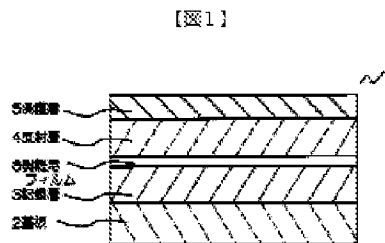
Matsuishi et al. teach a printable optical recording medium, which has a recording layer, a protective layer, which reads on applicants' substrate or base material layer for the printing layer, and an ink-receiving layer provided in that order (Abstract). They teach at col. 7, lines 25-30 that the protective layer and ink-receiving layer may be combined with each other or the protective layer may include a plurality of layers,

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wherein one of the plurality of protective layers reads on applicants' base material layer of the printing layer and another one of the protective layers reads on the substrate of applicants' or Otomo. They teach at col. 9, lines 45-51 the properties of their ink-receiving/protective layers, which include *inter alia* water resistance (hydrophobic) and hardness (abrasion resistance). The ink-receiving layer may be used in conjunction with oil-based inks (col. 10, lines 21-25); further, they teach at col. 11, lines 17-46 that the polymers in their protective layers and ink-receiving layer have a higher hydrophobic property than prior art receiving layers/protective layers. From all of this evidence, the Examiner deems that the protective layers of Matsuishi et al. intrinsically comprise non-hydrophilic (i.e. hydrophobic) films.

Since Matsuishi et al. and Otomo are both drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine a protective layer and an ink-receiving layer of Matsuishi et al. on top of the substrate layer of the previously modified optical disc of Otomo. The results of which would have been completely predictable to one having ordinary skill; further, the components would have performed the same in combination as they had separately. Another motivation for combining these references would be to lead to an optical disc that was customizable by the consumer.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo, Matsuishi et al., and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo in view of Matsuishi et al. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

With specific regard to the release layer provided between the substrate and the printing layer of claim 14, the Examiner deems this to be a mere duplication of parts of the release layer placed in between the substrate and the recording layer. It has been held that "mere duplication of parts has no patentable significance unless a new and

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unexpected result is produced.” Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would have been obvious to one having ordinary skill in the art of optical recording media to include a release layer at any position in the optical recording medium strata, including in between the printing layer and the substrate as claimed. A motivation for doing so would be additional security as it would allow one to dispose of the printing layer, which might have important information thereon, or for affording separation and potential recycling of the individual layers of the optical recording medium.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Matsuishi et al. (5,972,457) and Ota (JP 2000-030302), and as evidenced by applicants’ admissions, as applied to claim 14 above, and further in view of Arai et al. (5,020,048).

Otomo in view of Matsuishi et al. and Ota render obvious all of the limitations of applicants’ claim 2 in section 14 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film **6** formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants’ and also Otomo in view of Anderson (col. 2, lines 35-38).

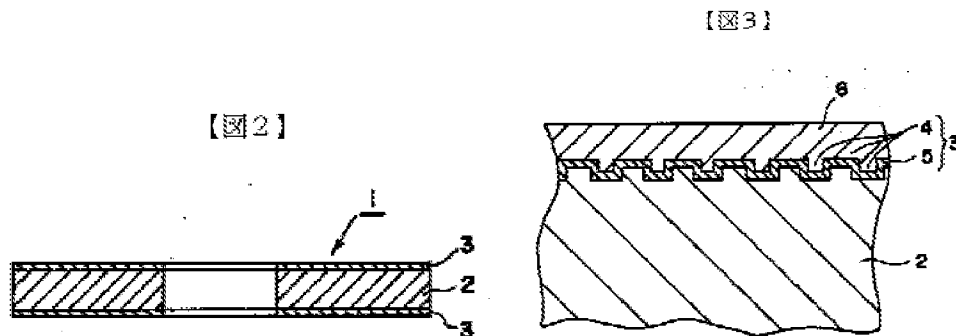
Since Otomo, Matsuishi et al., Ota, and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the

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invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Matsuishi et al. and Ota. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

16. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate

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2 of biodegradable resin and a recording layer **3** formed on at least one side of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer in between the substrate and recording layer, a release layer in between the substrate and the printing layer, and a protective layer for protecting the recording layer.

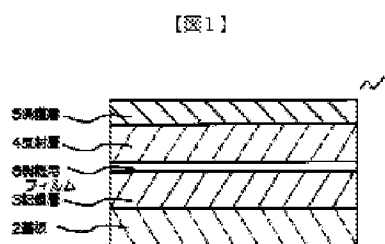
With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

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Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Since Otomo and Anderson are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson with the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making this combination is to provide a customizable surface to the use of the optical disc medium.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

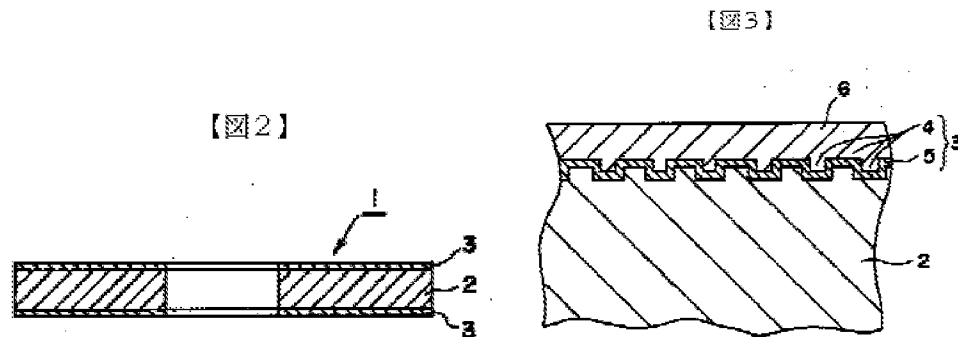
Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

With regard to claim 15, it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer 6 in order to provide extra water fastness and abrasion resistance for the recording layer.

17. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on at least one side of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer in between the substrate and recording layer, a release layer in between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

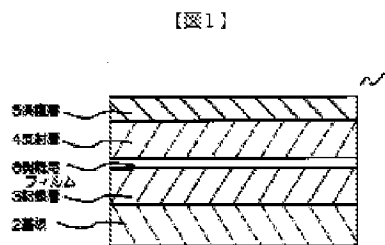
Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Since Otomo and Anderson are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson with the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making

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this combination is to provide a customizable surface to the use of the optical disc medium.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

18. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions, as applied to claim 14 above, and further in view of Arai et al. (5,020,048).

Otomo in view of Anderson and Ota render obvious all of the limitations of applicants' claim 14 in section 13 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film 6 formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Anderson and Ota (col. 2, lines 35-38).

Since Otomo, Anderson, Ota, and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Anderson and Ota. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

Response to Arguments

19. Applicant's arguments filed 03/17/2009 have been fully considered but they are not persuasive.

With regard to claims 1 and 3, applicants argue that the Examiner has incorrectly referred to the protective layer **5** of Ota as a substrate layer.

The Examiner disagrees and notes that the protective layer **5** of Ota **reads** on the substrate layer of applicants or Otomo. This language is now explicitly in the rejection to avoid any confusion. The protective layer of Ota reads on the substrate layer of Otomo and applicants because it is located in the same relative position as the substrate layer of Otomo and applicants, i.e. on the opposite side of the reflective layer from the recording layer.

With regard to claims 1-4, 14, and 15, applicants argue that the use of "consisting essentially of" language excludes the "peeling operation hole" and an "instrument" of Ota.

First, the Examiner is not incorporating the "peeling operation hole" and "instrument" of Ota into the device of Otomo. The Examiner notes that Figure 1 of Ota does not have said "peeling operation hole" and "instrument;" furthermore, the Examiner notes that Figure 2 is a further embodiment of the optical disc recording medium of Ota, i.e. "Drawing 2 is the example which formed the peeling operation hole **7**" [0018]. The Examiner interprets this passage as meaning that Figure 2 is a further embodiment to Figure 1. The Examiner notes additional evidence to this regard at [0017] of Ota, which states that the layers of the first embodiment can be separated "by applying external

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force to the lamination." This passage does not require a "peeling operation hole" and an "instrument" of the preferred embodiment of Ota; furthermore, the Examiner did not use the second embodiment of Ota to make his rejection, and therefore the present rejection does not include a "peeling operation hole" and an "instrument."

Second, assuming *arguendo* that the Examiner did incorporate the "peeling operation hole" and an "instrument" of Ota, applicants have not established that these features are excluded by the phrase "consisting essentially of." While it is recognized that the phrase "consisting essentially of" narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, "consisting essentially of" is construed as equivalent to "comprising;" further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. "peeling operation hole" and an "instrument," would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant's invention. Please see MPEP 2111.03.

With regard to claims 2 and 4, applicants argue that the Examiner has not set forth a proper *prima facie* case to render obvious the release layer provided in between the substrate and the printing layer.

The Examiner respectfully disagrees and notes that the it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between any two layers, including between the substrate and printing layer as claimed, of the disc of Otomo in view of Matsuishi et al.

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The results of this combination would have been predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. Another motivation for making the modification to these references can be found in Ota at [0021], which discloses that the release provide an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal. Finally, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium. One of ordinary skill would be apprised of wanting to dispose of a printing layer separately as that would also provide an extra level of security.

Applicants then argue that the above rationale is based on impermissible hindsight.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The Examiner respectfully disagrees with applicants' arguments and notes that the Supreme Court in *KSR v. Teleflex* 550 U.S. 398 (2007) stated that "the analysis

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need not seek out precise teachings directed to the specific subject matter of the challenged claims, [one] can take into account of the inferences and creative steps that a person of ordinary skill in the art would employ;" further, the court stated that "[a] person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." The Examiner maintains that it would have been obvious to include a release layer at any point in the stack of layers, including between the substrate and printing layer as claimed, of the recording medium of Otomo in view of Matsuishi et al. A motivation for doing so would be additional security as it would allow one to dispose of the printing layer, which might have important information thereon, or for affording separation and potential recycling of the individual layers of the optical recording medium.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-F 9:30am-7pm est. (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Bernatz, acting SPE for Carol Chaney, can be reached on 571-272-1505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Gerard T Higgins
Examiner
Art Unit 1794

/Gerard T Higgins/
Examiner, Art Unit 1794

/Kevin M Bernatz/
Acting SPE of Art Unit 1794

April 9, 2009